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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,700	10/18/2001	Roger Samzelius	P01,0353	8626

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SCHIFF HARDIN, LLP
PATENT DEPARTMENT
6600 SEARS TOWER
CHICAGO, IL 60606-6473

EXAMINER	
WEISS JR, JOSEPH FRANCIS	
ART UNIT	**PAPER NUMBER**
3743	

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/982,700	SAMZELIUS, ROGER	
	Examiner	Art Unit	
	Joseph F Weiss Jr.	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

I. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

II. Claims 1-4, 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al (US 6360740) in view of Olsson (US 5373842).

In regards to claim 8, Ward substantially discloses the instant application's claimed invention to include a tubing system (8), a pneumatic unit (6), a sensor system (22/24) consisting of at least one flow meter and a pressure meter (see col. 5 lines 36-38), a control unit (30) an excitable cell detector (18, 20/20A) adapted to detect excitable cell signals related to the respiration of the user, a second determination unit (18) supplied with said excitable cell signals which determines a second respiration indicator signal based upon excitable cell signals and an adapter unit (10) supplied with said second respiration indicator and connectable to said controller, said adaptation unit adaptable to a trigger requirement dependent on said second respiration indicator signal and supplying said trigger requirement to a comparator, but Ward does not disclose said control unit having a first determination unit connected to said sensor system to receive a measurement signal representing at least one parameter and determining a first respiration indication signal based upon the parameter, a comparator connected to the first determination unit that receives said first respiration indicting signal with a trigger requirement, and generating a comparator output indicative of whether or not the trigger requirement has been meet and a signal generator supplied with the comparator for generating a trigger signal for controlling triggering respiratory phases dependent on

comparator output. However, Olsson disclose such (See Fig 1, the trigger unit sub-component 100 of control unit 20 which receives such inputs, has a trigger level, makes/draws comparisons using a comparator and generates output signals/adjustments based upon such comparisons see col. 4 line 5 to col. 5 line 54). The references are analogous since they are from the same field of endeavor, the respiratory arts. At the time the instant application's invention was made, it would have been obvious to one of ordinary skill in the art to have taken the features of Olosson and used them with the device of Ward. The suggestion/motivation for doing so would have been to optimize sensitivity and accuracy of ventilation support by using a trigger comparator arrangement. Therefore it would have been obvious to combine the references to obtain the instant application's claimed invention.

Furthermore, such a feature is old and well known in the art, and one of skill in the art would consider such to amount to a matter of mere obvious and routine choice of design, rather than constitute a patently distinct inventive step, barring a convincing showing of evidence to the contrary.

In regards to claim 9, the suggested device discloses such as being trigger sensitive and adaptive (note the teaching regarding the variable gain).

In regards to claim 10, the suggested device discloses the trigger requirement as being trigger enabled and is fully capable of triggering only when the second respiratory signal indicates a commencement of a natural change in respiratory phase.

In regards to claim 11, the suggested device discloses the excitable cell signal detector (18) is disclosed as a nerve signal sensor (See Ward col. 4 line 66-col. 5 line 3).

In regards to claim 12, the suggested device discloses the excitable cell signal detector (18) is disclosed as a phrenic efferent signal sensor (See Ward col. 4 line 66-col. 5 line 5).

In regards to claim 13, the suggested discloses the excitable cell detector comprising a muscle signal sensor. (See Ward col. 4 line 66-col. 5 line 5).

In regards to method claims 1-5 & 7, one of ordinary skill in the art would appreciate that the method steps claimed in the instant application would naturally flow from the device disclosed in the prior art as noted above and therefore are rejected herein above with respect to claims 8-15.

III. Claims 6 & 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward & Olsson in view of Sinderby (US 5671752).

In regards to claim 14, the suggested device substantially discloses the instant application's claimed invention, but does not explicitly disclose an EMG diaphragm sensor. However, Sinderby disclose such (See Fig 8). The references are analogous since they are from the same field of endeavor, the respiratory arts. At the time the instant application's invention was made, it would have been obvious to one of ordinary skill in the art to have taken the features of Sinderby and used them with the suggested. The suggestion/motivation for doing so would have been to optimize sensitivity and accuracy of ventilation support by direct diaphragm monitoring. Therefore it would have been obvious to combine the references to obtain the instant application's claimed invention.

Furthermore, such a feature is old and well known in the art, and one of skill in the art would consider such to amount to a matter of mere obvious and routine choice of design, rather than constitute a patently distinct inventive step, barring a convincing showing of evidence to the contrary.

In regards to claim 15, the suggested device discloses the sensor as comprising a esophageal catheter having an array of sensing electrode.

In regards to method claims 6, one of ordinary skill in the art would appreciate that the method steps claimed in the instant application would naturally flow from the device disclosed in the prior art as noted above and therefore are rejected herein above with respect to claims 14-15.

Response to Arguments

1. Applicant's arguments filed 26 Feb 04 have been fully considered and are persuasive in terms of clarity of the reject making finality improper but they are not persuasive on the merits due to this lack of clarity of the underlying rejection. Accordingly a new rejection on the merits is noted above resolving the issues of clarity so that applicant may set forth a more reliable basis of response. Please note however that if applicant takes the position currently taken regarding the method claims then applicant's filing will be found violative of 35 USC 101, one invention one patent interpretation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph F Weiss Jr. whose telephone number is 703-305-0323. The examiner can normally be reached on M-F, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A. Bennett can be reached on 703-308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-305-3590.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

JWeiss
03/04/04

Henry Bennett
Supervisory Patent Examiner
Group 3700